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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,121	09/29/2005	Jan-Elo Jorgensen	55320.000601	3990

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EXAMINER	
COLLINS, CYNTHIA E	
ART UNIT	**PAPER NUMBER**
1638	
MAIL DATE	**DELIVERY MODE**
10/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,121	JORGENSEN, JAN-ELO	
	Examiner	Art Unit	
	Cynthia Collins	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *January 24, 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-31* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 2-3, drawn to a method according to claim 1 wherein the wild type plant or the parent plant for the genetically modified plant of step (a) is selected from a group consisting of *Lotus japonicus, Medicago truncatula, Oryza sativa, Antirrhinum majus* and *Arabidopsis thaliana.*

Group II, claim(s) 4-5, drawn to a method according to claim 1 wherein the accelerated growth of tissue of the genetically modified plant is due to overexpression of a B-type cyclin gene.

Group III, claim(s) 4-5, drawn to a method according to claim 1 wherein the accelerated growth of tissue of the genetically modified plant is due to overexpression of a D-type cyclin gene.

Group IV, claim(s) 4, drawn to a method according to claim 1 wherein the accelerated growth of tissue of the genetically modified plant is due to overexpression of an E1A gene.

Group V, claim(s) 4, drawn to a method according to claim 1 wherein the accelerated growth of tissue of the genetically modified plant is due to overexpression of an E2F gene.

Group VI, claim(s) 4, drawn to a method according to claim 1 wherein the accelerated growth of tissue of the genetically modified plant is due to overexpression of a myc gene.

Group VII, claim(s) 4, drawn to a method according to claim 1 wherein the accelerated growth of tissue of the genetically modified plant is due to overexpression of a gene positively affecting the cell cycle regulatory system other than a cyclin gene, an E1A gene, an E2F gene or a myc gene.

Group VIII, claim(s) 7-9, drawn to a method according to claim 6 wherein the gene product that activates the cell cycle regulatory system of the plant is the cyclAt gene.

Group IX, claim(s) 7-9, drawn to a method according to claim 6 wherein the gene product that activates the cell cycle regulatory system of the plant is the AtcycD2 gene.

Group X, claim(s) 7-9, drawn to a method according to claim 6 wherein the gene product that activates the cell cycle regulatory system of the plant is the AtcycD1 gene.

Group XI, claim(s) 7-8, drawn to a method according to claim 6 wherein the gene product that activates the cell cycle regulatory system of the plant is a gene coding for E2F.

Group XII, claim(s) 7-8, drawn to a method according to claim 6 wherein the gene product that activates the cell cycle regulatory system of the plant is a gene coding for myc.

Group XIII, claim(s) 7-8, drawn to a method according to claim 6 wherein the gene product that activates the cell cycle regulatory system of the plant is any gene positively affecting the cell cycle regulatory system other than a cyclin gene, an E2F gene or a myc gene.

Group XIV, claim(s) 10-11, drawn to a method according to claim 6 wherein the promoter is a plant promoter is selected from the group consisting of an inducible promoter and a constitutive promoter.

Group XV, claim(s) 10 and 12, drawn to a method according to claim 6 wherein the promoter wherein the plant gene promoter is selected from the group consisting of an Atcdc2a promoter (prAtcdc2a), a 35S promoter and an Atcdc2b-promoter.

Group XVI, claim(s) 13-14, drawn to a method according to claim 6 wherein the gene construct comprises a polyadenylation site derived from the Nopaline synthetase gene of *Agrobacterium tumefaciens,* an octopine synthetase gene or 35S polyadenylation sequences.

Group XVII, claim(s) 15, drawn to a method according to claim 6 wherein the gene construct is introduced by means of *Agrobacterium tumefaciens* or *Agrobacterium rhizogenez.*

Group XVIII, claim(s) 16, drawn to a method according to claim 1 wherein the mutagenisation treatment of step (b) is performed by a method selected from the group consisting of EMS mutagenesis, T-DNA-mutagenesis and mutagenesis by using a transposable element.

Group XIX, claim(s) 17-18, drawn to a method according to claim 1, wherein the identification in step (d) of nucleic acid sequence(s) having a sequence which is different from the corresponding sequence(s) in the non- mutagenised transgenic plant is performed using a method selected from the group consisting of an Amplified Fragment Length Polymorphism (AFLP) method, a Single Sequence Length Polymorphism (SSLP), a differential display method, a restriction fragment length polymorphism (RFLP) method, a Single Strand Conformation Polymorphism (SSCP) method, allele specific amplification, restriction PCR, PCR, sequencing and a Single Nucleotide Polymorphism (SNP) method.

Group XX, claim(s) 19, drawn to a method according to claim 1 wherein the nucleic acid sequence identified in step (d) and/or the product encoded by the sequence is functionally associated with the phenotype of the selected mutant plants of step (c).

Group XXI, claim(s) 20-21, drawn to a method according to claim 1 wherein, in step (e), the target nucleic acid sequence is identified by a homology search in a genome database for the target organism or by molecular probing using a method selected from the group consisting of PCR, northern blotting, Southern blotting, arraying and direct sequencing.

Group XXII, claim(s) 22, drawn to a method according to claim 1, comprising the further step of isolating the target nucleic acid sequence identified in step (e).

Group XXIII, claim(s) 23, drawn to a method according to claim 1 wherein the product of the target nucleic acid sequence is functionally active in a signal transduction cascade leading to suppression of cell growth in the target organism.

Group XXIV, claim(s) 24, drawn to a method according to claim 1 wherein the product of the target nucleic acid sequence is a suppressor of cell growth in the target organism.

Group XXV, claim(s) 25, drawn to a method according to claim 1, wherein a putative functional association between the plant nucleic acid sequence identified in step (d) and the target nucleic acid sequence is determined by homology analysis between said plant nucleic sequence and said target nucleic sequence.

Group XXVI, claim(s) 26, drawn to a method according to claim 1, wherein a putative functional association between the plant nucleic acid sequence identified in step (d) and the target nucleic acid sequence is determined by analysing the effect of expressing the target nucleic acid sequence in an *in vitro* model for assaying cell growth regulation activity.

Group XXVII, claim(s) 27, drawn to a method according to claim 1, wherein a putative functional association between the plant nucleic acid sequence identified in step (d) and the target nucleic acid sequence is determined by analysing the effect of expressing the target nucleic acid sequence in an *in vivo* model for assaying cell growth regulation activity.

Group XXVIII, claim(s) 29-30, drawn to a method according to claim 1, wherein the eukaryotic target organism is a cell selected from the group consisting of a microbial cell including a yeast cell, a plant cell and a mammalian cell.

Group XXIX, claim(s) 31, drawn to method of determining the tumour suppressor activity, if any, of a gene product encoded by a eukaryotic cell gene.

Claim 1 link(s) inventions I-XXVIII. Claim 6 link(s) inventions VIII-XVII. The restriction requirement between the linked inventions is **subject to** the nonallowance of the linking claim(s), claim 1 and 6. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions **shall** be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104 **Claims that require all the limitations of an allowable linking claim** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, the allowable linking claim, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

The inventions listed as Groups I-XXIX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking the inventions of Groups I-XXIX is mutagenisation of a plant that is genetically modified to have tissue exhibiting accelerated growth in order to identify gene sequences that affect growth. However, mutagenisation of a plant that is genetically

modified to have tissue exhibiting accelerated growth in order to identify gene sequences that affect growth is obvious or anticipated over Page D.R. et al. (The art and design of genetic screens: *Arabidopsis thaliana*. Nat Rev Genet. 2002 Feb;3(2):124-36. Review) and Stalhs H. et al. (When plant cells decide to divide. Trends Plant Sci. 2001 Aug;6(8):359-64. Review), and therefore does not constitute a special technical feature as defined by PCT Rule 13.2, because it does not define a contribution over the prior art.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

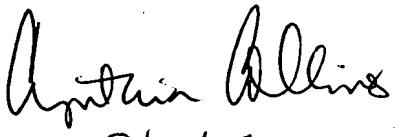
Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (571) 272-0794. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cynthia Collins
Primary Examiner
Art Unit 1638



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